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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,508	10/18/2001	Masaou Matsuda	358362010400	5230

7590 07/10/2006

Barry E Bretschneider  
Morrison & Foerster  
2000 Pennsylvania Avenue N W  
Washington, DC 20006-1888

EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/889,508

Applicant(s)

MATSUDA ET AL.

Examiner

Jennifer A. Boyd

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4 and 6-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2,4,6-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Submission dated April 28, 2006***

1. The Applicant's Remarks, filed April 28, 2006, have been entered and have been carefully considered. Claims 1 – 2, 4 and 6 – 12 are pending. The invention as currently claimed is unpatentable for reasons herein below.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

3. Claims 1, 2, 4, 6, 8 and 11 - 12 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al. (US 4,721,746) in view of Leumer (US 5,658,662). The details of the rejection can be found in the Office Action dated January 30, 2006. The rejection is maintained.
4. Claim 7 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al. (US 4,721,746) in view of Leumer (US 5,658,662), as applied above, and further in view of Buxbaum (US 4,101,526). The details of the rejection can be found in the Office Action dated January 30, 2006. The rejection is maintained.
5. Claims 9 – 10 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Tashiro et al. (US 4,721,746) in view of Leumer (US 5,658,662), as applied above, and further in view of

Vogt (US 5,952,413). The details of the rejection can be found in the Office Action dated January 30, 2006. The rejection is maintained.

***Response to Arguments***

6. Applicant's arguments filed April 28, 2006 have been fully considered but they are not persuasive.

Applicant argues that there is no evidence on record that persons of ordinary skill in the art would have been aware that the characteristics set forth in formulas 1 – 9 of claims 1, 4 and 6 could be achieved by any combination of Tashiro and Leumer. In review, it should be noted that Tashiro teaches the basic characteristics of the flame-retardant polyester fiber. Tashiro teaches copolymerizing a phosphorus compound with the polymer constituting the synthetic fiber (column 3, lines 65 – 67 and column 4, lines 1 – 5). Tashiro teaches that the synthetic fiber can be polyester (column 3, lines 15 – 25). Tashiro teaches that the phosphorus is present in the amount of 0.5 – 7.0% (5,000 – 70,000 ppm) by weight (column 6, lines 30 – 50). Tashiro teaches a phosphorus compound as shown by Formula IV (column 3, lines 1 – 10 and column 5, lines 45 – 55). The Examiner acknowledges that Tashiro does not teach that the take-up speed is 1000 – 4500 meters/minute as required by claim 1. However, Leumer provides motivation to use a similar take-up speed from 500 – 1500 m/min in order to a flame-retardant polyester fiber at a spinning speed which reflects current spinning capacities in order to improve production speed and having a low shrinkage level which is suitable for industrial fabrics (see Leumer, column 9). Since Tashiro in view of Leumer meets each and every chemical and structural requirement for the flame-retardant polyester fiber, the fiber must meet the claimed properties set forth by

Applicant. Since no other structural or chemical features are claimed in the independent claims, which may distinguish the present invention from Tashiro in view of Leumer, the presently claimed properties are deemed to be inherent to Tashiro in view of Leumer. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 495. Without a showing that evidences a difference between Tashiro in view of Leumer and the present invention, the invention is rendered obvious. Furthermore, the burden is upon the Applicant to demonstrate that the claimed product is materially different than the prior art product despite the differences between the methods of production. The Examiner submits that case of obviousness has been established and, in light of this, the Examiner asserts that the claimed properties are inherent to the product of Tashiro in view of Leumer.

Applicant argues that Tashiro teaches a draw ratio of 3.5 in the Examples while Applicant claims a draw ratio of no more than 2.88. It should be noted that the Examiner has used the secondary reference, Leumer, to teach the use of a low draw ratio to achieve high strength fibers. Applicant indicates that the draw ratio taught by Leumer is 4.5 – 6.0, however, in column 8, lines 55 – 65, Leumer teaches that the draw ratio is *1:4.5 to 1:6* (column 8, lines 60 – 65). Furthermore, if Leumer does not meet Applicant's claimed range, the Applicant fails to provide evidence to support Applicant's arguments.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jennifer Boyd

July 5, 2006

*W. A. Rudbeck*  
W. A. Rudbeck  
Primary Examiner  
Tech Center 1700